

IN THE U.S. PATENT AND TRADEMARK OFFICE

Applicant: Jae-Gab LEE et al. Conf.: Unknown  
Appl. No.: NEW Group: Unknown  
Filed: January 14, 2004 Examiner: UNASSIGNED  
For: THIN FILM TRANSISTOR HAVING COPPER ALLOY  
WIRE AND METHOD OF MANUFACTURING THE  
SAME

INFORMATION DISCLOSURE STATEMENT  
(SUBMISSION WITH CONTINUATION-IN-PART OR  
RULE 1.53(b) CONTINUATION OR DIVISIONAL APPLICATION)

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

January 14, 2004

Sir:

Pursuant to 37 C.F.R. §§ 1.97 and 1.98, applicant(s) hereby submit(s) an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS OR OTHER INFORMATION

The patents, publications, or other information submitted for consideration by the Office are listed on the PTO-1449 form(s), attached hereto.

II. REFERENCES PREVIOUSLY CITED OR SUBMITTED

Pursuant to 37 C.F.R. § 1.98(d), consideration of information listed on the PTO-1449 form(s) is requested since any patents, publications, or other information which are listed on the PTO-1449 form(s) but for which copies are not enclosed herewith, were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120:

U.S. Appl. No(s).  
09/686,802

U.S. Filing Date(s)  
October 12, 2000

III. FEES

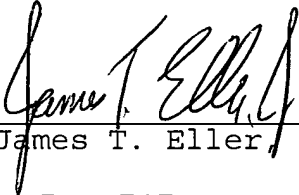
This Information Disclosure Statement is being filed concurrent with the filing of a continuation-in-part, continuation, or divisional patent application; therefore, no fee is required.

If the Examiner has any questions concerning this IDS or requires a copy of any of the references cited but not provided, he/she is requested to contact the undersigned. If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule and charge the appropriate fee to Deposit Account No. 02-2448.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fee required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By   
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3430-0199P

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Attachment(s) : ☒ PTO-1449(s)

☐ References

☐ Foreign Search Report

☐ Other:

(Rev. 09/30/03)

Form PTO-1449				ATTY. DOCKET NO. 3430-0199P		APPLICATION NO. NEW		
<b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  (Use several sheets if necessary)				APPLICANT Jae-Gab LEE et al.				
				FILING DATE January 14, 2004		GROUP Unassigned		
<b>U.S. PATENT DOCUMENTS</b>								
EXAMINER INITIAL	DOCUMENT NUMBER	Kind	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE	
	US 5,959,358	A	1999-09-28	Lanford et al.				
	US 6,037,257	A	2000-03-14	Chiang et al.				
	US 6,165,917	A	2000-12-26	Batey et al.				
	US 6,249,055	B1	2001-06-19	Dubin				
	US 2001/0034126	A1	2001-10-25	Ding et al.				
	US							
	US							
	US							
	US							
	US							
<b>FOREIGN PATENT DOCUMENTS</b>								
Office	DOCUMENT NUMBER	Kind	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
							YES	NO
<b>OTHER DOCUMENTS</b> (Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.)								
	Landford et al., "Low-Temperature Passivation of Copper by Doping with Al or Mg," Thin Solid Films, 262 (1995) 234-241.							
	Ding et al., "Thermal Annealing of Buried Al Barrier Layers to Passivate the Surface of Copper Films," Appl. Phys. Lett., 65 (1994) 1778							
	Sirringhaus et al., "Self-Passivated Copper Gates for Amorphous Silicon Thin-Film Transistors," IEEE Elec. Dev. Lett., Vol. 18, No. 8 (Aug. 1997) 388.							
	Itow et al., "Self-Aligned Passivation on Copper Interconnection Durability Against Oxidizing Ambient Annealing," Appl. Phys. Lett., 63 (1993) 934.							
EXAMINER				DATE CONSIDERED				
EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								

Form PTO-1449

## INFORMATION DISCLOSURE CITATION IN AN APPLICATION

(Use several sheets if necessary)

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3430-0199P

APPLICATION NO.  
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Jae-Gab LEE et al.

FILING DATE  
January 14, 2004

GROUP
Unassigned

## U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

## OTHER DOCUMENTS

**OTHER DOCUMENTS** (Include Name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.

	Hymes et al., "Passivation of Copper by Silicide Formation in Dilute Silane," J. Appl. Phys., 71 (1992) 4623.
	Li et al., "Oxidation and Protection in Copper and Copper Alloy Thin Films," J. Appl. Phys., 70 (1991) 2820.
	Lee et al., "Diffusion Barrier and Electrical Characteristics of a Self-Aligned MgO Layer Obtained from a Cu(Mg) Alloy Film," App. Phys. Lett., 77 (2000) 2192.

EXAMINER

DATE	CONSIDERED
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.